



NS104D1C1_seqlisting_061606

SEQUENCE LISTING

<110> Palese, Peter
Garcia-Sastre, Adolfo

<120> RECOMBINANT NEGATIVE STRAND RNA VIRUS
EXPRESSION SYSTEMS AND VACCINES

<130> 26-003700US

<140> 09/396,539

<141> 1999-09-14

<150> 09/106,377

<151> 1998-06-29

<150> 08/252,508

<151> 1994-06-01

<160> 71

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for rescue of the mutant NA gene into virus particles

<400> 1

tacgaggaaa tggtcctgtt a

21

<210> 2

<211> 19

<212> PRT

<213> Influenza virus

<400> 2

Gln Leu Val Trp Met Ala Cys Asn Ser Ala Ala Phe Glu Asp Leu Arg

1 5 10 15
Val Leu Ser

<210> 3

<211> 16

<212> PRT

<213> Influenza virus

<220>

<223> epitope within the NP protein

<400> 3

Thr Tyr Gln Arg Thr Arg Gln Leu Val Arg Leu Thr Gly Met Asp Pro

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<210> 4

<211> 95

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<212> DNA

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<220>

<223> Primer for construction of plasmid pV-wt

<400> 4

gaagcttaat acgactcact ataagtagaa acaagggtgt tttttcatat catttaaact 60
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<210> 5

<211> 95

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of plasmid pM-wt

<400> 5

gaagcttaat acgactcact ataagcaaaa gcagggtgaa gtttaaata tatgaaaaaa 60
cacccttggt tctactgaat tcattcttct gcagg 95

<210> 6

<211> 68

<212> DNA

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<220>

<223> Primer for construction of plasmid pV-d5'

<400> 6

agcttaatac gactcactat aagatctatt aaacttcacc ctgcttttgc tgaattcatt 60
cttctgca 68

<210> 7

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of plasmid pV-d5'

<400> 7

gaagaatgaa ttcagcaaaa gcagggtgaa gtttaataga tcttatagtg agtcgtatta 60

<210> 8

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of plasmid pHgANS

<400> 8

ccgaattctt aatacgactc actataagta gaaacaaggg tg 42

<210> 9

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of plasmid pHgANS

<400> 9
cctctagacg ctcgagagca aaagcaggtg 30

<210> 10
<211> 15
<212> RNA
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<223> Primer for construction of plasmid pHgANS

<400> 10
caccugcuu uugcu 15

<210> 11
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<212> RNA
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<220>
<223> Primer for generating point mutations in promoter sequence

<400> 11
caccugcuu uuacu 15

<210> 12
<211> 15
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer for generating point mutations in promoter sequence

<400> 12
caccugcuu cugcu 15

<210> 13
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<210> 14
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<400> 14
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<210> 15
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<220>

<223> Primer for generating point mutations in promoter sequence

<400> 15

caccucguuu uuacu

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<210> 16

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<223> Primer for generating point mutations in promoter sequence

<400> 16

caccucguuu uugcu

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<210> 17

<211> 16

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for generating point mutations in promoter sequence

<400> 17

caccuugcu uuacu

16

<210> 18

<211> 16

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for generating point mutations in promoter sequence

<400> 18

caccuuguu uuacu

16

<210> 19

<211> 16

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for generating point mutations in promoter sequence

<400> 19

caccuuguu ucuacu

16

<210> 20

<211> 96

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 20

ctagacgccc tgcagcaaaa gcagggtgac aaagacataa tggagaaaaa aatcactggg 60
tataccaccg ttgatatatc ccaatcgcat cgtaaa 96

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<210> 21
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 <223> Primer for generating flanking sequences of NS RNA to fuse with the coding sequence of the CAT gene

 <400> 21
 gttctttacg atgcgattgg gatatatcaa cggtggtata ccagtgatt tttttctcca 60
 ttatgtcttt gtcaccctgc ttttgctgca gggcgt 96

 <210> 22
 <211> 34
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for generating flanking sequences of NS RNA to fuse with the coding sequence of the CAT gene

 <400> 22
 actgcgatga gtggcagggc ggggcgtaat agat 34

 <210> 23
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of plasmid pIVACAT1

 <400> 23
 ctagatctat tacgccccgc cctgccactc atcgcagt 38

 <210> 24
 <211> 34
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 24
 actgcgatga gtggcagggc ggggcgtaat agat 34

 <210> 25
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for generating flanking sequences of NS RNA to fuse with the coding sequence of the CAT gene

 <400> 25
 ctagatctat tacgccccgc cctgccactc atcgcagt 38

 <210> 26
 <211> 97
 <212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of plasmid pIVACAT1

<400> 26

ctagacgccc tgcagcaaaa gcagggtgac aaagacataa tggagaaaaa aaatcactgg 60
gtataccacc gttgatatat cccaatcgca tcgtaaa 97

<210> 27

<211> 96

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of plasmid pIVACAT1

<400> 27

gttctttacg atgcgattgg gatatatcaa cggtgggtata cccagtgtatt tttttctcca 60
ttatgtcttt gtcaccctgc ttttgctgca gggcgt 96

<210> 28

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of pT3NAV

<400> 28

cggaattctc ttcgagcgaa agcaggagtt 30

<210> 29

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of pT3NAV mut 2

<400> 29

catgggtgag tttcgaccaa aatctagatt ataaaatagg atacatatgc a 51

<210> 30

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 30

catgggtgag tttcgaccaa aatctagatt ataaaatagg atacatatgc a 51

<210> 31

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for construction of pT3NAV mut 2

<400> 31

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aatgtatcct attttataat ctagattttg gtcgaaactc acc 43

<210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of pT3NA/BIP

<400> 32
 ggccactagt aggtcgacgc cggc 24

<210> 33
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of pT3NA/BIP

<400> 33
 gcgctggcca tcttgccagc ca 22

<210> 34
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of pT3NA/BIP-CAT

<400> 34
 agaaaaaat cactggg 17

<210> 35
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of pT3NA/BIP-CAT

<400> 35
 ttacgccccg ccctgcc 17

<210> 36
 <211> 23
 <212> DNA
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<220>
 <223> Primer for construction of pT3BIP-NA

<400> 36
 gcgcatcgat aggtcgacgc cgg 23

<210> 37
 <211> 55
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Primer for construction of pT3BIP-NA

<400> 37
ggccatcgat ccaatgggta ttattttctg gtttgattc atcttgccag ttggg 55

<210> 38
<211> 91
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3GP2/BIP-NA (L-primer)

<400> 38
atgactggat ccgctagcat ggccatcatt tatctcattc tcctgttcac agcagtgaga 60
ggggaccaga tagaagaatc gcaaaaccag c 91

<210> 39
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3GP2/BIP-NA (M-primer)

<400> 39
atgacagaat tcgtcgactt atctattcac tacagaaag 39

<210> 40
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3GP2/BIP-NA

<400> 40
gcgcgaaagac gcagcaaaag caggagtta agctagcatg gccatcattt atc 53

<210> 41
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3HGP2/BIP-NA

<400> 41
cgatggatcc gctagcttgg aatcgatggg ggtgtatc 38

<210> 42
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3HGP2/BIP-NA

<400> 42
atcgatgaat tcgtcgactc agatgcatat tctgcac 37

<210> 43
<211> 51

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<212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of pT3HGP2/BIP-NA

<400> 43
 atgactgtcg acccatggaa gtcaatcgat gttatgttaa accaattcca c 51

<210> 44
 <211> 28
 <212> DNA
 <213> Influenza A virus

<400> 44
 gcgcgaattc tcttcgagca aaagcagg 28

<210> 45
 <211> 18
 <212> DNA
 <213> Influenza virus

<220>
 <223> Position 243-226 of the NA gene

<400> 45
 agagatgaat tgccggtt 18

<210> 46
 <211> 6
 <212> PRT
 <213> Human Immunodeficiency Virus-1 (HIV-1)

<400> 46
 Glu Leu Asp Lys Trp Ala
 1 5

<210> 47
 <211> 12
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 47
 ccugcuuuyg cu 12

<210> 48
 <211> 22
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 48
 aguagaaaca aggguguuuu uu 22

<210> 49
 <211> 52
 <212> RNA

<213> Influenza A virus

<400> 49
aguagaaaca aggguguuuu uucauaucau uuaacuucac ccugcuuuug cu 52

<210> 50

<211> 53

<212> RNA

<213> Influenza A virus

<400> 50
agcaaaagca gggugaagu uaaaugauau gaaaaaacac ccuuguuucu acu 53

<210> 51

<211> 30

<212> RNA

<213> Influenza A virus

<400> 51
agaucuaaua aacuucaccc ugcuuuugcu 30

<210> 52

<211> 43

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for generate mutagenesis sequence within viral gene segments

<400> 52
aguagaaaca aggguguuuu uucagauca uuacgccccg ccc 43

<210> 53

<211> 15

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 53
aguagaaaca aggag 15

<210> 54

<211> 14

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 54
aguagaaaca agag 14

<210> 55

<211> 12

<212> RNA

<213> Artificial Sequence

<220>

<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 55

NS104D1C1_seqlisting_061606

ccugcuuucg cu 12

<210> 56
 <211> 53
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 56
 ccatgggtga gtttcgacca aaatctagat tataaaatag gatacatatg cag 53

<210> 57
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 57
 cctgcagaag aatga 15

<210> 58
 <211> 55
 <212> RNA
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<220>
 <223> Primer for generate mutagenesis sequence within viral gene segments

<400> 58
 gugguauacc cagugauuuu uuucuccauu augucuuugu cacccugcuu uugcu 55

<210> 59
 <211> 53
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 59
 cugcagaugu auccuauuuu auaaucuagg uuugggucga aggacacca ugg 53

<210> 60
 <211> 12
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 60
 ccugcuuucg cu 12

<210> 61
 <211> 53
 <212> RNA
 <213> Artificial Sequence

<220>

NS104D1C1_seqlisting_061606

<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 61
cugcauauugu auccuauuuu auaaucuaga uuuuggucga aacucaccca ugg 53

<210> 62
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 62
ctagacgccc tgcagcaaaa gcagggtgac aaagacataa tggagaaaaa aatcactggg 60
tataccaccg ttgatataatc ccaatcgcat cgtaaa 96

<210> 63
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3NAV

<400> 63
ccaagcttat taaccctcac taaaagtaga aacaaggagt tt 42

<210> 64
<211> 40
<212> DNA
<213> Artificial sequence

<220>
<223> Oligonucleotide

<400> 64
tgggtatacc accgttgata tatcccaatc gcatcgtaaa 40

<210> 65
<211> 52
<212> DNA
<213> Artificial sequence

<220>
<223> Oligonucleotide

<400> 65
gtgatttttt tctccattat gtctttgtca ccctgctttt gctgcagggc gt 52

<210> 66
<211> 53
<212> RNA
<213> Artificial sequence

<220>
<223> Transcribed V-wt template

<400> 66
aguagaaaca aggguguuuu uucauaucau uuaaaciua cccugcuuuu gcu 53

<210> 67
<211> 53

NS104D1C1_seqlisting_061606

<212> RNA
 <213> Artificial sequence

 <220>
 <223> Transcribed M-wt template

 <400> 67
 agcaaaagca gggugaaguu uaaaugauau gaaaaaacac ccuuguuucu acu 53

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 <213> Artificial sequence

 <220>
 <223> Linker sequence

 <400> 68
 cagaucua 8

 <210> 69
 <211> 13
 <212> RNA
 <213> Artificial sequence

 <220>
 <223> Transcribed CAT gene terminal sequence in pIVCAT1

 <400> 69
 uuacgccccg ccc 13

 <210> 70
 <211> 29
 <212> RNA
 <213> Artificial sequence

 <220>
 <223> Transcribed CAT gene terminal sequence in pIVCAT1

 <400> 70
 gugguauacc cagugauuuu uuucuccau 29

 <210> 71
 <211> 26
 <212> RNA
 <213> Artificial sequence

 <220>
 <223> 3' nontranslated end of influenza A/PR/8/34 virus segment 8

 <400> 71
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